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Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims

Claims 1-17 (canceled)

Claim 18 (previously presented) An isolated or recombinant polypeptide having lipase activity and comprising a sequence having at least 94% amino acid sequence identity to the mature region of SEQ ID NO: 55.

Claim 19 (canceled)

Claim 20 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein said polypeptide comprises a sequence selected from SEQ ID NO: 55 or the mature region thereof.

Claims 21-48 (canceled)

Claim 49 (previously presented) The isolated or recombinant polypeptide of claim 20, wherein the polypeptide comprises an amino acid sequence corresponding to SEQ ID NO: 55.

Claim 50 (canceled)

Claim 51 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein the encoded polypeptide exhibits enantioselective lipase activity.

Claim 52 (previously presented) The isolated or recombinant polypeptide of claim, wherein the encoded polypeptide exhibits lipase activity with respect to tributyrin.

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Claim 53 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein the encoded polypeptide exhibits lipase activity with respect to tributyrin in N,N-dimethylformamide (DMF).

Claim 54 (canceled)

Claim 55 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein the encoded polypeptide exhibits enantioselective lipase activity with respect to neryl-butyrate.

Claim 56 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein the encoded polypeptide exhibits enantioselective lipase activity with respect to geranyl-butyrate.

Claim 57 (canceled)

Claim 58 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein the encoded polypeptide exhibits lipase activity with respect to pentadecanolid.

Claim 59 (canceled)

Claims 60-71 (canceled)

Claim 72 (previously presented) The polypeptide of claim 18, further comprising a leader sequence.

Claim 73 (canceled)

Claim 74 (previously presented) The polypeptide of claim 18, wherein the polypeptide comprises a secretion signal or a localization signal.

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Claim 75 (previously presented) The polypeptide of claim 18, wherein the polypeptide comprises an epitope tag.

Claim 76 (previously presented) The polypeptide of claim 18, wherein the polypeptide comprises a fusion protein comprising one or more additional amino acid sequences.

Claim 77 (previously presented) The polypeptide of claim 18, further comprising a polypeptide purification domain.

Claim 78 (previously presented) The polypeptide of claim 77, wherein the polypeptide purification domain is selected from the group consisting of: an epitope tag, a polyhistidine sequence, and a glutathione S-transferase (GST).

Claim 79 (previously presented) The polypeptide of claim 18, further comprising a methionine residue at the N-terminus.

Claim 80 (previously presented) The polypeptide of claim 18, wherein the polypeptide further comprises a modified amino acid.

Claim 81 (previously presented) The polypeptide of claim 80, wherein the modified amino acid is selected from the group consisting of: a glycosylated amino acid, a PEGylated amino acid, a farnesylated amino acid, an acetylated amino acid, a biotinylated amino acid, and an amino acid conjugated to a lipid moiety.

Claim 82 (canceled)

Claim 83 (previously presented) A composition comprising one or more polypeptide of claim 18 and a pharmaceutically acceptable excipient.

Claims 84-130 (canceled)

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Claim 131 (previously presented) A composition comprising the polypeptide of claim 18 and a surfactant.

Claims 132-133 (canceled)

Claim 134 (previously presented) The composition of claim 131, further comprising one or more of: a builder, a polymer, a bleach system, a structurant, a pH adjuster, a humectant, or a neutral inorganic salt.

Claims 135-180 (canceled)

Claim 181 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Lys at position 1, Thr at position 14, Ser at position 17, Arg at position 22, Glu at position 26, Pro at position 31, Gly at position 33, Glu at position 34, Pro at position 35, Pro or Thr at position 37, Ser or Lys at position 41, Gly at position 42, Arg or Glu at position 43, Ala at position 61, Tyr at position 75, Gly at position 96, Ser at position 97, Thr at position 104, Ser at position 107, Ala at position 125, Gly at position 129, Val at position 134, Cys at position 138, Lys at position 141, Lys at position 146, Thr at position 156, Met at position 160, Arg at position 166, and His at position 177,

wherein the positions are equivalent amino acid positions with respect to SEQ ID NO: 75.

Claim 182 (previously presented) The isolated or recombinant polypeptide of claim 18, wherein the isolated or recombinant polypeptide comprises a sequence having at least 95% amino acid sequence identity to the mature region of SEQ ID NO: 55.

Claim 183 (previously presented) The isolated or recombinant polypeptide of claim 182, wherein the isolated or recombinant polypeptide comprises a sequence having at least 96% amino acid sequence identity to the mature region of SEQ ID NO: 55.

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Claim 184 (previously presented) The isolated or recombinant polypeptide of claim 183, wherein the isolated or recombinant polypeptide comprises a sequence having at least 97% amino acid sequence identity to the mature region of SEQ ID NO: 55.

Claim 185 (previously presented) The isolated or recombinant polypeptide of claim 183, wherein the isolated or recombinant polypeptide comprises a sequence having at least 98% amino acid sequence identity to the mature region of SEQ ID NO: 55.

Claim 186 (previously presented) The isolated or recombinant polypeptide of claim 182, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Lys at position 1, Thr at position 14, Ser at position 17, Arg at position 22, Glu at position 26, Pro at position 31, Gly at position 33, Glu at position 34, Pro at position 35, Pro or Thr at position 37, Ser or Lys at position 41, Gly at position 42, Arg or Glu at position 43, Ala at position 61, Tyr at position 75, Gly at position 96, Ser at position 97, Thr at position 104, Ser at position 107, Ala at position 125, Gly at position 129, Val at position 134, Cys at position 138, Lys at position 141, Lys at position 146, Thr at position 156, Met at position 160, Arg at position 166, and His at position 177,

wherein the positions are equivalent amino acid positions with respect to SEQ ID NO: 75.

Claim 187 (previously presented) The isolated or recombinant polypeptide of claim 183, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Lys at position 1, Thr at position 14, Ser at position 17, Arg at position 22, Glu at position 26, Pro at position 31, Gly at position 33, Glu at position 34, Pro at position 35, Pro or Thr at position 37, Ser or Lys at position 41, Gly at position 42, Arg or Glu at position 43, Ala at position 61, Tyr at position 75, Gly at position 96, Ser at position 97, Thr at position 104, Ser at position 107, Ala at position 125, Gly at position 129, Val at position 134, Cys at position 138, Lys at position 141, Lys at position 146, Thr at position 156, Met at position 160, Arg at position 166, and His at position 177,

wherein the positions are equivalent amino acid positions with respect to SEQ ID NO: 75.

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Claim 188 (previously presented) The isolated or recombinant polypeptide of claim 182, wherein the isolated or recombinant polypeptide exhibits enantioselective lipase activity.

Claim 189 (previously presented) An isolated or recombinant polypeptide exhibiting enantioselective lipase activity,

wherein the polypeptide is encoded by a polynucleotide that hybridizes under stringent conditions over substantially the entire length of a polynucleotide having a sequence corresponding to SEQ ID NO: 1,

wherein stringent hybridization conditions are 42°C overnight in 50% formamide with 1 mg heparin and a 0.2x SSC wash at 65°C for 15 minutes,
and

wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Lys at position 1, Thr at position 14, Ser at position 17, Arg at position 22, Glu at position 26, Pro at position 31, Gly at position 33, Glu at position 34, Pro at position 35, Pro or Thr at position 37, Ser or Lys at position 41, Gly at position 42, Arg or Glu at position 43, Ala at position 61, Tyr at position 75, Gly at position 96, Ser at position 97, Thr at position 104, Ser at position 107, Ala at position 125, Gly at position 129, Val at position 134, Cys at position 138, Lys at position 141, Lys at position 146, Thr at position 156, Met at position 160, Arg at position 166, and His at position 177,

wherein the positions are equivalent amino acid positions with respect to SEQ ID NO: 75.

Claims 190-210 (canceled)

Claim 211 (new) The isolated or recombinant polypeptide of claim 18, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Arg at position 22, Gly at position 33, Ser or Lys at position 41, Arg at position 43, Ser at position 107, Lys at position 141, Lys at position 146, Met at position 160, and His at position 177.

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Claim 212 (new) The isolated or recombinant polypeptide of claim 211, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Arg at position 43 and Ser at position 107.

Claim 213 (new) The isolated or recombinant polypeptide of claim 18, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Ser at position 17, Arg at position 22, Pro at position 31, Gly at position 33, Ser or Lys at position 41, Lys at position 141, Lys at position 146, Met at position 160, Arg at position 166, and His at position 177.

Claim 214 (new) The isolated or recombinant polypeptide of claim 213, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Ser at position 17, Pro at position 31, and Arg at position 166.

Claim 215 (new) The isolated or recombinant polypeptide of claim 189, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Arg at position 22, Gly at position 33, Ser or Lys at position 41, Arg at position 43, Ser at position 107, Lys at position 141, Lys at position 146, Met at position 160, and His at position 177.

Claim 216 (new) The isolated or recombinant polypeptide of claim 215, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Arg at position 43 and Ser at position 107.

Claim 217 (new) The isolated or recombinant polypeptide of claim 189, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Ser at position 17, Arg at position 22, Pro at position 31, Gly at position 33, Ser or Lys at position 41, Lys at position 141, Lys at position 146, Met at position 160, Arg at position 166, and His at position 177.

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Claim 218 (new) The isolated or recombinant polypeptide of claim 217, wherein the polypeptide comprises one or more amino acid residues selected from the group consisting of Ser at position 17, Pro at position 31, and Arg at position 166.

Claim 219 (new) A composition comprising the polypeptide of claim 189 and a surfactant.

Claim 220 (new) The composition of claim 219, further comprising one or more of: a builder, a polymer, a bleach system, a structurant, a pH adjuster, a humectant, or a neutral inorganic salt.